New and Little Known Species of *Serica* (Coleoptera: Scarabaeidae) X[1]

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Abstract: In this paper twelve new species are described: **adversa, alabama, aviceps, barri, bruneri, diablo, floirdana, frosti, heteracantha, howdeni, pullata, sericeoides,** and one new subspecies: *perigonia* **eremicola**. Ten previously described species are figured: *alleni, anthracina, castanea, ensenada, mackenziei, oliveri, peregrina, pilifera, rossi,* and *sericea*. Four species names are reduced to synonymy: *joaquinella* to *oliveri*; *mendota* to *pruinipennis*; *michelbacheri* to *fimbriata*; and *searli* to *alleni*. The spelling "*atricapilla*" is corrected to *atracapilla*, and *trociformis blatchleyi* is given specific standing. Supplementary distribution notes are given beyond those recorded in paper #IX of this series.

The present study is based upon the examination of about 3,000 specimens of *Serica*. For the privilege of working over this material the writer is much indebted to the following entomologists: Hugh Leech, Henry Howden, Bob Woodruff, Paul Hurd, Saul Frommer, O. L. Cartwright, Ross Arnett, S. W. Frost and William Barr. Appreciation is also expressed for the capable and painstaking work of Miss Francoise S. Demogeot in making the accompanying drawings.

Serica **adversa** n. sp.

MALE: Length 8 mm; width 4 mm. Scarcely, or not, distinguishable from *sculptilis* by external characters.

Dark brown, bare and shining with conspicuous, fine, dense puncturation, a little fine hair on the elytral margin, basal portion of the legs and under surface. Clypeus feebly tumid below the middle, sides only moderately elevated, without clypeal notches, punctures fine and very dense, becoming a little stronger and less crowded on the front. Antennal club about equal to the dorso-ventral diameter of the eye. Elytral striae emphasized by about three dense, confused rows of fine punctures. Only the narrow crests of the intervals free from punctures.

The genital armature of the male (fig. 39) differs from that of *sculptillis* by being heavier, stronger, with relatively longer, broader claspers, and a much thicker and differently shaped apex of the stalk. In *sculptilis* the apex of the stalk is narrowed (dorso-ventrally) to a remarkable degree. In **adversa** the right (longer) clasper is more strongly bowed than the left, and more so than in *sculptilis*.

TYPE: ♂. San Joaquin Mountains near Laguna, Orange Co., California, VII-29-63, light trap. Deposited in the Canadian National Collection.

PARATYPES: 10 ♂♂ same data, 1 ♂ San Diego, IV-17-34.

The *sculptilis* complex is not easily disposed of, but apparently **adversa** will prove to be a distinct species. There are several other puzzling forms.

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[1] Scientific Paper No. 2987 College of Agriculture, Washington State University, Pullman. Project No. 9043.

Serica **alabama** n. sp.

Remarkably like *sericea*, but averaging a little smaller, and having the pronotum of the female pruinose like that of the male, not shining as in *sericea*. The genital armature of the male (fig. 13) has smaller, shorter claspers, which are much more curved or sinuate in outline than in the *sericea* male. The distribution pattern, Ohio to Alabama, indicates a distinct species.

TYPE: ♂. Raleigh, N.C., June 9, 1953, G. H. Nelson; deposited in the collection of the California Academy of Sciences.
PARATYPES: Ohio: Hocking Company, 1; Ashland Company, 1; Athens Co., 4; Adams Company, 3; Ross Company, 1. Georgia: Atlanta, 4; Kennesaw Mountain, 3; Athens, 1. Tennessee: Grassy Cove, 1; Knoxville, 2. Kentucky: Louisville, 1. Alabama: Hagler, 1; Ft. Payne, 2; Montgomery, 4; Verbena, 1. North Carolina: Raleigh, 3.

Serica alleni Saylor **New Synonymy**

1939. *Serica alleni* Saylor, Jour. Wash. Acad. Sci., **29,** pp. 454, 457.
1939. *Serica searli* Saylor, same paper, pp. 454, 459.

Specimens from a variety of localities suggest a radiating cline not readily broken into valid subspecies. The form called *searli* by Saylor (fig. 20) approaches *porcula* Casey, and is distinguishable from that species chiefly by its coarser, heavier genital armature and more arcuate claspers. The form designated as *alleni* (figs. 21, 22) is an average type. Figure 20 is from a specimen taken at the same place, the same day as the holotype of *searli*, and figures 21 and 22 are from a paratype of *alleni* given to me by Mr. Saylor. Figure 23 is from a specimen taken by Henry Howden at Wofford Heights, Ken Co., California, VI-12-14, 1961, at light. A series of 19 specimens before the writer shows various intergradations that make a separation into species or subspecies most unreliable. Calling them all *alleni* is at present the best solution.

Serica atricapilla Kirby **Emendation**

According to the International Code whenever possible the original spelling must be used. Therefore *atracapilla* replaces *atricapilla* now widely used.

Serica **aviceps** n. sp.

MALE: Length 9 mm; width 5 mm. Color varying a little between the middle shades of dull brown, faintly shining, not pruinose or "dusted," with only a faint trace of iridescence. Clypeal margins rather strongly and abruptly elevated with a shallow but well-marked clypeal notch; surface finely and evenly, densely punctured, the punctures continuing over the front, almost concealing the clypeal suture. Antennal club slightly longer than the dorso-ventral diameter of the eye. Puncturation of the pronotum fine, shallow and rather dense especially toward the sides. Striae of elytra line-like, impressed and with a dense row of punctures, intervals moderately convex, variable in width and puncturation. Elytral surface microscopically shagreened and iridescent.

Genital armature (figs. 29, 30) suggesting that of *oliveri*, but the right clasper is concave and truncate subapically, then suddenly flexed toward the center in a "bird-head" like tip. The left clasper, viewed ventrally, has only a suggestion of the double tip characteristic of *oliveri*.

TYPE: ♂. Fresno, California, June 8, 1937. R. W. Dawson deposited in the collection of the California Academy of Sciences.
PARATYPES: Fresno 1 ♀; Fowler 2 ♂♂, 2 ♀♀; Wood Lake, Tulare Company 1 ♂; Sequoia N. P. 1 ♂; Vernalis 2 ♂♂; Visalia 1 ♂; Coalinga 1 ♂.

Serica **barri** n. sp.

MALE: Length 7.5 mm; width 4 mm. However specimens taken the same day in the same population are as small as 6 mm in length, and from less favorable locations, 5 mm. Color a middle shade of brown dulled by a thin, light gray dust and a trace of fine, pale pubescence, most evident on the bases of the front and middle legs and on the elytral margin. A lightly sclerotized, delicate species from desert areas.

Antennal club of male 1.5 times the dorso-ventral diameter of the moderate-sized eye. Antennal club of the female distinctly smaller, only a little longer than the eye measurement. Clypeus very densely punctured, margins well elevated; a fine clypeal notch, evident in some specimens, obsolete in others. Elytral striae shallow with a single, irregular, dense row of punctures; intervals feebly convex with a few scattered, small punctures near the striae.

The genital armature of the male (figs. 24, 25) somewhat resembling that of *deserticola*, but the upper margins of the claspers are elevated. On the right clasper the median ridge connects with the elevated margin at the apex forming a slight hood. This is the most distinctive feature of the species. On the shorter, left clasper the median ridge extends into a sub-falcate "beak," the elevated margin ending with the beak.

TYPE: ♂. Sand Dunes, St. Anthony, Idaho, VII-5-1966; deposited in the collection of the California Academy of Sciences.
PARATYPES: Same locality, 131 ♂♂, 8 ♀♀; Arches Monument, Utah, June 19, 1949, C. P. Alexander, 2 ♂♂; Wadsworth, Story Co., Nevada, V-28-1939 1 ♂; Kayenta, Arizona, VI-12-1933 1 ♂.

The southwestern specimens show more prominent or exaggerated characters in the genital armature, but seem definitely to belong here.

Serica blatchleyi Dawson **New Status**

1910. *Serica trogiformis blatchleyi* (not Uhler). Coleoptera of Indiana, p. 958.
1932. *Serica trociformis blatchleyi* Dawson, Jour. N.Y. Ent. Soc., **XL,** p. 545.

Early in my studies of the genus *Serica*, I thought that the character of the genital armature of the male could be used as the final criterion in judging species. It was at once evident that external characters often failed to distinguish unquestioned species (*atracapilla* and *elusa* for example). Later it became apparent that the genital armatures do not always differentiate recognizably between obvious species (*sericea* and *tristis* for example). Horrible thought, maybe some perfectly distinct species cannot be recognized either way!

In this case I believe the larger, smooth, convex, shining pronotum of

trociformis Burmeister, and the smaller, pruinose, impressed pronotum of *blatchleyi* Dawson indicate distinct species. Through the years I have never seen specimens indicating either continuity of range, or intergradation of characters.

Serica **bruneri** n. sp.

A small, relatively broad species; length 5–7 mm; width 3–4 mm. Color dark brown to nearly black, thus bearing a superficial resemblance to *anthracina* LeConte. But it differs from that species markedly by having much larger antennae, the club about twice the dorso-ventral diameter of the eye, and about the same length as the 5-segmented stem. The whole upper surface bears sparse, shaggy, semi-erect, light brown, more or less deciduous, hairs which on the elytra tend to follow the sharp, line-like striae, but are not definitely so limited. Intervals of elytra closely and strongly punctured. Pronotum and clypeus similarly punctured. Clypeus broad, almost rectangular, slightly concave with well reflexed anterior and lateral margins, no clypeal notch, and clypeal suture a minute line. Under surface with sparse, brown hair, becoming very prominent on the anterior coxae and femora and somewhat so on the middle and hind femora.

The genital armature of the male (fig. 3) resembles that of *anthracina* (fig. 6) but is smaller and more slender. A striking difference is seen in the mid-ventral chitinous point of the stalk, long in *anthracina* and holding the claspers almost straight ahead, short in **bruneri** letting the claspers flex ventrally.

TYPE: Near Blanca, Colorado, June 19, 1944, B. Rotger C. R., deposited in the collection of the California Academy of Sciences.
PARATYPES: 31 ♂♂ taken in the area from Ft. Garland to Glanca and to the Great Sanddunes National Monument in Colorado.

This species is dedicated to the memory of Professor Lawrence Bruner with whom the writer, as a student, spent a never-to-be-forgotten summer collecting insects in the type locality.

Serica **diablo** n. sp.

MALE: Length 7 mm; width 4 mm. Color dark castaneus, surface bare and shining, finely, rather evenly and densely punctate. Clypeus finely and densely punctured, the punctures separated by their own diameter or less, front less densely and finely punctured, the intervals between the punctures of both minutely shagreened. Clypeal margins roundly and strongly reflexed, broadly and moderately emarginate in front, lateral incisures obsolete. The antennae of the male moderate in size, the club about as long as the stem and equal to the dorso-ventral diameter of the eye.

Pronotal punctures of only moderate size, separated by one to two diameters, the shagreen of the surface nearly obsolete, being largely confined to the punctures. Elytra "corrugated," the striae relatively broad and densely punctured, the intervals narrow and largely impunctate.

The female very much like the male; antennae of the same size but with the club narrower at its origin; the posterior margin of the last sternite not emarginate and the abdomen more fully rounded.

To more fully delineate the remarkable pattern of the right clasper of the genital armature, two specimens were used in the drawings (figs. 17, 18). This clasper can rotate laterally 90° or more. The horn-like process can turn across the end of the armature and lock under

the margin of the left clasper. The varying positions of the claspers greatly modify the superficial appearance of the armature. The variation in the shape of the stalk in the three figures is not to be taken seriously. It is due to several factors; angle of view on an asymmetrical object, distortion of a tubular structure in drying, and some actual variation in the specimens. The drawings were made with great care by the aid of a check-micrometer, so little is to be attributed to that source.

TYPE: A mated pair bearing the label: Mt. Diablo, Contra Costa Co., California, V-30-54, on *Adenostoma fasciculatum*, W. E. Ferguson, collector. The type will be deposited in the collection of the California Academy of Sciences. PARATYPES: 32 ♂♂ and 34 ♀♀ with the same data as the type; Sequoia N.P. 1 ♂; Santa Barbara Co. 1 ♂; Santa Lucia Mountains 1 ♂.

Serica fimbriata LeConte **New Synonymy**

1856. *Serica fimbriata* LeConte, Jour. Acad. Nat. Sci. Phil., (2) **III,** p. 275.
1947. *Serica fimbriata* Dawson, Jour. N.Y. Ent. Soc., **LV,** pp. 229, 230, Pl. XV.
1948. *Serica michelbacheri* Saylor, Proc. Calif. Acad. Sci., (4) **XXIV,** pp. 345, 346, Pl. 14.

The holotype of *michelbacheri* has been examined and found to be a perfectly typical specimen of *fimbriata* LeConte.

Serica **floridana** n. sp.

MALE: Length 7 mm; width 4 mm. Color light chestnut brown, glabrous, shining, no bloom or iridescence. Clypeus plain, moderately punctured, margins rather strongly and abruptly elevated, the front margin nearly straight and separated from the side margins by narrow but deep and distinct notches. Punctures of the front strong along the suture and grading off to an impunctate occiput. Eyes large and prominent, and antennal club equal to the dorso-ventral diameter of the eye.

Pronotum with the sides nearly straight and parallel in the posterior 3/5, then rounded to the width of the head through the eyes. Puncturation shallow, irregular, with the punctures separated by one to three diameters. Elytra with strong striae emphasized by numerous strong, deep punctures, the narrow crests of the intervals nearly impunctate.

Female easily recognized, eyes and antennal clubs smaller by 1/6 and last ventral sternite almost straight across instead of emarginate medially.

The genital armature of the male shows several distinctive characters (figs. 4, 5); the broad, asymmetrical stock with its apical portion abruptly narrowed, and the claspers frequently flexed deeply against the ventral side and rotated to the left. The rim of the left clasper is densely covered with minute, black setae or bristles, arising from punctures which gives the surface a roughened appearance. This is an unusual character in the genus.

TYPE: ♂. Interlachen, Florida, April 2, 1931, H. & A. Howden; deposited in the Canadian National Collection.

PARATYPES: Florida, Interlachen, 11 ♂♂, Gainesville, 3 ♂♂. North Carolina: Kill Devil Hills, Dare Co., May 1952, Arnett, 15 ♂♂, 27 ♀♀. Alabama: Mobile, 2 ♂♂, 1 ♀. Georgia: Baker Co., June, 1956, 1 ♂. Mississippi: Hattiesburg, May 10, 1944, C. D. Michener, 1 ♂. New Jersey: Atsion, June 27, 1946, J. W. Green, 1 ♂.

Serica **frosti** n. sp.

MALE: Length 7 mm; width 4 mm. Color light chestnut brown with a thin rainbow iridescence, nearly devoid of pubescence except for some fine, brown hair on the front and middle legs. Antennae of male with club longer than the diameter through the eye, the proportion about 5.5 to 4.5. In the female both eyes and antennae are smaller, using the same scale, the proportion is 4.5 to 4.3. The sexes can be readily separated by the size of the antennal club. Clypeus rather coarsely and closely punctured; front margin strongly elevated and broadly, feebly arcuate, the side margins less elevated thus suggesting the position of a clypeal notch at the junction with the front margin. Pronotum with rather coarse punctures separated by about two diameters, closer at the sides. Elytra with line-like striae, rather deeply impressed and crowded with a confused row of fine punctures, intervals convex and impunctate at the crest.

The male genital armature (fig. 38) somewhat resembles that of *pusilla* but the stalk is longer and the claspers are always directed far ahead. This position is due to the mid-ventral point of the stalk contacting the sclerotized base of the claspers, thus inhibiting a downward flexure. This limitation of position does not occur in *pusilla* where the claspers have great freedom of motion, and consequently assume many positions.

TYPE: ♂. Archbold Biological Station, Lake Placid, Florida, R. W. Dawson, February 10, 1966; deposited in the collection of the California Academy of Sciences.

PARATYPES: about 200 from the same locality, taken during February and March.

The writer is indebted to Dr. S. W. Frost for these specimens, attracted to his light trap, and is dedicating the species to him. In his light-trap papers this species is listed under the name *Serica errans* Blatchley (a synonym of *pusilla*). Despite the local abundance of **frosti,** I know of no other records of it, while *pusilla* and *aspera*, somewhat similar species, have rather wide distributions.

Serica **heteracantha** n. sp.

MALE: Length 8 mm; width 4.5 mm. Light golden brown, dulled by a gray pollen, most noticeable on the elytra. Clypeus broad, especially apically, with very dense, fine punctures separated by less than their own diameter; margins reflexed without a clypeal notch, broadly arcuate medially; apical third of the disc slightly tumid medially, emphasizing the transverse depression before the reflexed apical margin; front with finer, much more sparse, punctures, occiput becoming impunctate; intervals of elytra convex, separated by sharp line-like striae, punctures fine and rather numerous, especially on the broader intervals.

Only the genital armature of the male (fig. 35) gives reliable evidence for separating this species from the numerous similar California species. On this basis *stygia* is the only known species which resembles it. The lateral view of the armature of *stygia* shows only one strong medial tooth, in **heteracantha** this median tooth is small and accompanied by a strong subapical tooth. Other angles of view show very striking differences between the armatures of the two species, but the characters figured are constant and quite sufficient for differentiating the two species.

TYPE: ♂. Jacumba, California, V-18-41, D. J. & J. N. Knull; deposited in the collection of the California Academy of Sciences.

PARATYPES: 10 ♂♂, 5 ♀♀ bear the same data; 2 ♂♂ Hurkey Cr., San Jacinto Mountains, California.

Serica **howdeni** n. sp.

MALE: Length 8 mm; width 4.8 mm. Dark brown, glabrous and shining, densely covered with moderate-sized punctures; clypeal margins strongly reflexed and deeply but narrowly notched between the anterior and lateral margins; the anterior margin nearly straight; clypeal disc slightly depressed marginally and slightly tumid medially; antennal club of male nearly as long as the stem of the antenna; striae of elytra deep, with three to four confused rows of strong, semi-confluent punctures; ventral surface of thorax strongly and densely punctured, of abdomen less so.

The genital armature of this species (figs. 1, 2) shows several distinctive characters. Most unusual is the deep, diagonal groove crossing the face of the right clasper. Next is the minutely setulose upper portion of the left clasper. To more clearly indicate these characters, drawings of both claspers from quite different angles are added.

TYPE: ♂. Tyler, Texas, March 2, 1953, S. E. Bennet, light trap, deposited in the Canadian National Collection.

Serica oliveri Saylor **New Synonymy**

1939. *Serica oliveri* Saylor, Proc. Ent. Soc. Wash., **41,** pp. 56, 57.
Serica joaquinella Saylor, same pages as above.

Both of Saylor's descriptions were based on single specimens; *joaquinella* on an undersized, teneral specimen in poor condition. Both of his types and 30 good additional specimens are before the writer, which makes it clear that *joaquinella* is a synonym. The outstanding, definitive character of the species, the double tip of the left clasper (fig. 11), is not mentioned, and not shown in Saylor's drawings. In some positions of the left clasper the outer lobe of the tip obscures the inner, unless you look for it. His statement: "The genitalia of *S. oliveri* are most similar to those of *S. solita*," is misleading and confusing, as is also his comparison of *joaquinella* to a bicolored *anthracina*, and its armature to that of *caliginosa*.

Specimens examined from Antioch, Delhi, Fowler, Fresno and Merced, California.

A considerable amount of variation occurs in the armature, especially in the end of the right clasper (fig. 10).

Oliveri, due to its dark color, robust stature and strongly pruinose elytra resembles **pullata,** here described as new, but the genitalia of the two species are strikingly dissimilar (figs. 10, 11, 9, 12).

Serica peregrina Chapin and *Maladera castanea* (Arrow)

Two species of Serica-like beetles have been accidentally introduced into the United States from Japan. They became established in New York and New Jersey in the early 1920's. Most abundant and best known is *Maladera castanea* (Arrow) also called the Asiatic Garden Beetle (fig. 36). Early confusion and disagreement about the scientific name caused it to be listed both

as *Autoserica* and *Aserica*. Less abundant, but definitely established, is *Serica peregrina* Chapin (fig. 37).

With both species the genital armatures are so radically different from any American species as to make them instantly recognizable.

Serica perigonia **eremicola** n. subsp.

When variants reach a confusing degree of development and are correlated with geographical distribution it seems desirable to designate them as subspecies. A well-known entomologist has said (perhaps not seriously): "A species *is* what the taxonomist *thinks* it is, until he changes his mind." So **eremicola** *is* a subspecies! The greatly expanded margin of the left clasper (figs. 7, 8) is its distinctive character. I believe that the finger-like end ("appendix") of the right clasper is *the* diagnostic character of the species *perigonia*.

TYPE: ♂. Mexico, Baja, California, Norte, Arr. Santo Domingo, 5.7 miles, E. Hamilton ranch dam site, 23-IV-1963, H. B. Leech & P. H. Arnaud, Jr.; deposited in the collection of the California Academy of Sciences.
PARATYPES: 29 ♂♂ and 21 ♀♀ with the same data.

Serica pilifera Horn

1894. *Serica pilifera* Horn, Proc. Cal. Acad. Sci., (2), **IV,** p. 397.

The identity of the type specimen, and the species, has long been in question. A single female in the Horn collection was thought to be the holotype. Since females in the genus *Serica* are difficult (sometimes impossible) to identify with certainty, the species was left in doubt. A recent letter from Dr. Leech helps to clarify both questions. He writes: "This male, which you dissected some years ago, is from Santa Maria, Baja California, and is undoubtedly the true type. The lectotype label was put on by E. P. Van Duzee, but not validated by publication. As you know, Horn returned the first set of the Baja California material to the California Academy of Sciences, and these beetles were saved by the late Miss Alice Eastwood after the 1906 earthquake, and before the fire which destroyed our general collections. It is only because Mr. Cresson believed all types to have been lost in the fire, that the Philadelphia Academy claimed to have the types, based on the duplicates which Horn retained when he studied our Baja California specimens."

Drawings made from this lectotype male are here presented (figs. 28, 31). Due to the age and condition of this specimen it is difficult to compare it with fresh material in high condition. L. W. Saylor compared a single recently collected male with the *pilifera* type (before I dissected it) and named it as a new species, *ensenada*. He says: "Related to *pilifera* Horn, from Santa Maria, and differs mainly by the more strongly reflexed clypeal apex, the absence of the lateral clypeal notch, and much more densely pilose surface." After comparing the two types, I fail to see a significant difference in these characters.

The genital armatures of the two types differ markedly in degree but not in basic pattern. In both forms the stalk of the armature is asymmetrical, distinctly longer on the left side and shorted on the right, so that the claspers are flexed toward the short side. A part of the apparent variation is due to the position of the claspers, which can be strongly flexed laterally and also apically. The most important characteristics in the armature of *ensenada* (figs. 26, 27) as compared to that of *pilifera* (figs. 28, 31) are the long, stream-lined, left clasper, and the blunt apex of the stalk on the left side. In Horn's type of *pilifera* the left clasper is broad and abruptly abbreviated in the terminal third, and the left side of the stalk is semi-falcate in outline.

Six typical males and six females are at hand from "3 miles above Rosario," which would be two-thirds of the way down the Baja peninsula. Three additional specimens are at hand which are somewhat intermediate between the two types, but are referred to *pilifera* by the writer due to the features just noted.

Serica ensenada Saylor

1948. *Serica ensenada* Saylor, Proc. Cal. Acad. Sci., (4), **XXIV,** p. 346, Pl. 14, fig. 1.

Saylor's holotype was used in making the accompanying figures (26, 27). The status of his species can best be determined when more material is available. See notes above under *pilifera*.

Serica porcula Casey

1884. *Serica porcula* Casey, Contr. to Desc. and Syst. Coleopterology of N. A. II, p. 177.
1947. *Serica porcula* Dawson, Jour. N.Y. Ent. Soc. **LV,** pp. 231–232, Pl. XVII.

Typical *porcula* occurs from the Mojave Desert in California across Arizona and New Mexico, and northward with scattered records from desert areas in Colorado to southeastern Wyoming. Specimens from all this area show little variation in the form of the genital armature. See my plate recorded above. An allied species complex in California presents a very different situation, discussed under *adversa* and *alleni* early in this paper.

Serica pruinipennis Saylor

1935. *Serica pruinosa* Saylor, Jour. Ent. & Zool., pp. 1, 2.
1936. *Serica pruinipennis* Saylor, Jour. Ent. Zool., **28,** p. 4. **New name**
1939. *Serica mendota* Saylor, Jour. Wash Acad. Sci., **29,** 454 and 457–458. **New Synonymy**
1952. *Serica pruinipennis* Dawson, Jour. N.Y. Ent. Soc., **LX,** p. 73, Pl. XIII.

When Mr. Saylor described *pruinosa* (*pruinipennis*) he overlooked the partial "4th leaf" in the antennal club. Later when working on a good series of specimens from Mendota, California he discovered it, and was thus led to

describe a new species, "*mendota*." The abbreviated lamella of the antennal club is a remarkable character otherwise unknown in the nearly 100 species of North American *Serica*. At its maximum development, occurring in the males, this 4th lamella reaches nearly half the length of the lamellate club, and at its minimum development, occurring in the females, may be reduced to a mere vestige, easily overlooked.

Serica **pullata** n. sp.

MALE: Length 8 mm; width 4.3 mm. Color piceous black dulled by a gray bloom. Bare above, sparsely clothed with short, ferruginuous hair beneath, becoming longer and conspicuous on the front and middle legs.

Antennae ferruginuous, club longer than the diameter of the eye, the proportion about as 4 to 3. Club of female antennae shorter, about equal to the diameter of the eye. Clypeus finely and densely punctured, front more coarsely and sparsely punctured, grading off to an impunctate occiput. Surface in the punctate areas minutely shagreened. Clypeal margin clear around strongly elevated, nearly straight in front and without a trace of lateral notches. Pronotum with fine, close but irregular puncturation, and shagreened surface, but dulled by the opaque, gray bloom. Elytra with fine striae just wide enough for a single row of fine punctures, intervals relatively wide, feebly convex and nearly impunctate, surface dull.

Genital armature large for the size of the beetle, plain and generalized in design (figs. 9, 12). With the aid of the genital armature this species is easily separated from *oliveri*, (figs. 10, 11) without it the similarity is baffling and the determination unreliable.

TYPE: ♂. Desert Springs, L. A. Co., California, May 19, 1954. On *Acamptopappus*, P. D. Hurd.
PARATYPES: Desert Springs, May and June, 6 ♂♂, 6 ♀♀. Hesperia, California, May 20, 1948, G. P. Mackenzie, 1 ♂, 4 ♀♀.

Serica **sericeoides** n. sp.

If a series of specimens were at hand, one might be able to point out tangible, external characters for differentiating *sericeoides* (figs. 14, 15) from *sericea* (fig. 16), but with only a single male of *sericeoides* for comparison that is not feasible. The male genital armature shows good characters: the terminal portion of the stalk is thinner and more delicate, the claspers relatively short and straight with sharp, laterally divergent tips. These characters indicate an undescribed species.

TYPE: ♂. Jackson Co., Alabama, June 19, 1934, H. P. Loding; deposited in the collection of the California Academy of Sciences.

Serica texana LeConte

Described in 1856, it took nearly a century to match his type with a single male from Lee County, Texas, previously recorded by the writer. Thus *texana* has been one of the rarest sericas in collections. Now Henry Howden sends me specimens from Texas as follows: Bastrop State Park, April 6–7, 1959, 16 ♂♂, 5 ♀♀, Fredericksburg, April 18, 1959, 3 ♂♂, 2 ♀♀. These localities are reasonably close to the type locality.

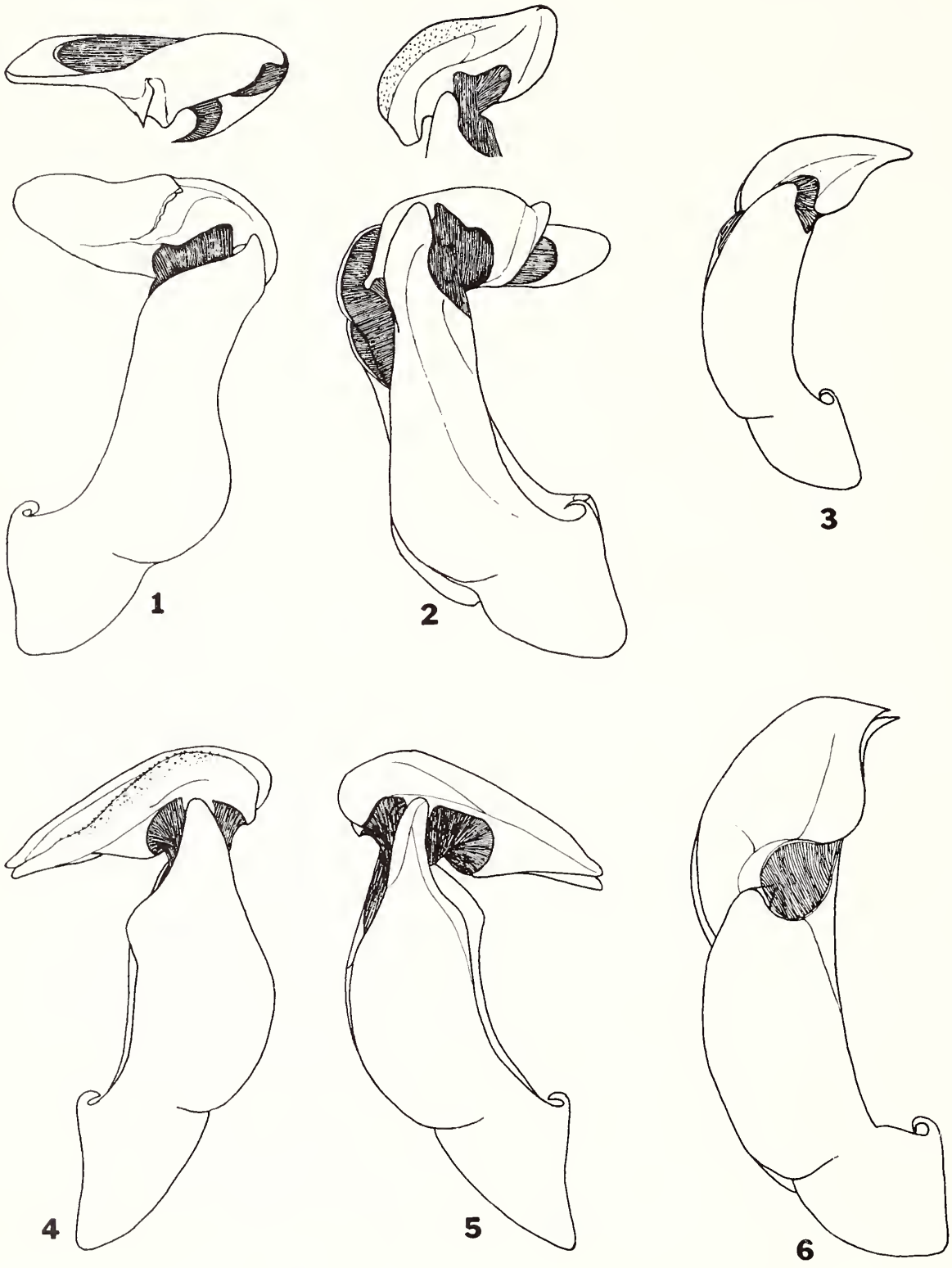
Additions to the previously published state lists of *Serica* in Jour. N.Y. Ent. Soc., **LX**(2), pp. 74–77:

Alabama: **alabama, floridana**.
Arizona: **barri**.
California: **adversa, aviceps, diablo, heteracantha, pullata,** *rossi*,
delete the following formerly listed: *joaquinella*, *mendota*.
Colorado: *porcula*, **bruneri.**
Connecticut: *imitans*.
Florida: **floridana, frosti**.
Georgia: **floridana, alabama**.
Idaho: **barri**.
Kentucky: **alabama**.
Louisiana: *texana*, *contorta*, delete: *atratula monita*.
Maryland: *castanea*.
Massachusetts: *perigrina*.
Mississippi: *vespertina accola*, **floridana**.
New Jersey: **floridana,** *perigrina*.
North Carolina: **floridana, alabama**.
Nevada: **barri**.
Ohio: **alabama**.
Pennsylvania: *castanea*.
South Carolina: *castanea*, *opposita*.
Tennessee: **alabama**.
Texas: *aspera*, **howdeni,** *parallela*.
Utah: **barri**.
Virginia: *carolina*.

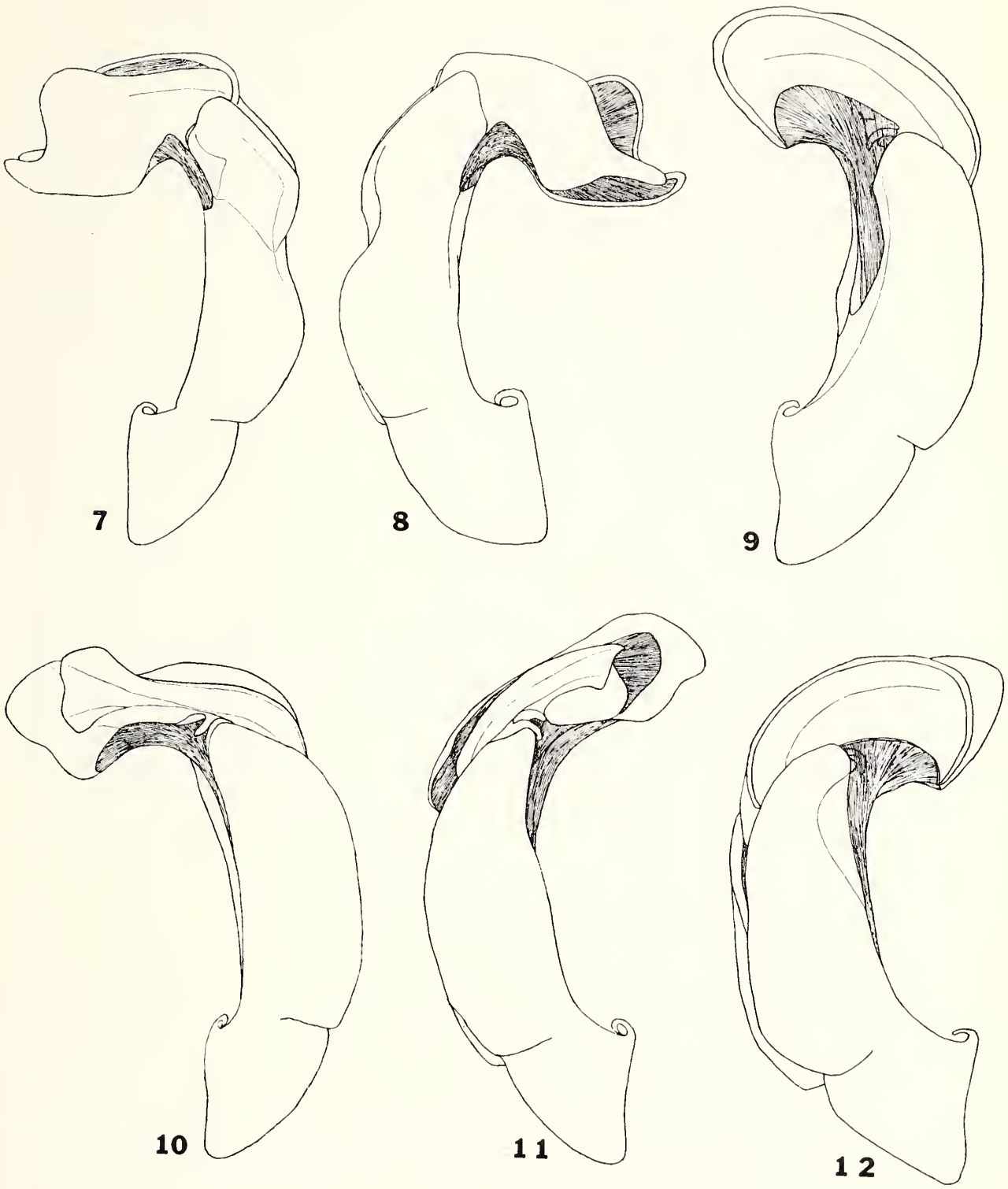
MEXICO

Baja California: *laguna*, *watsoni*, *fimbriata*, *prava*, *perigonia* **eremicola**.
delete: *michelbacheri*, *sculptilis*.

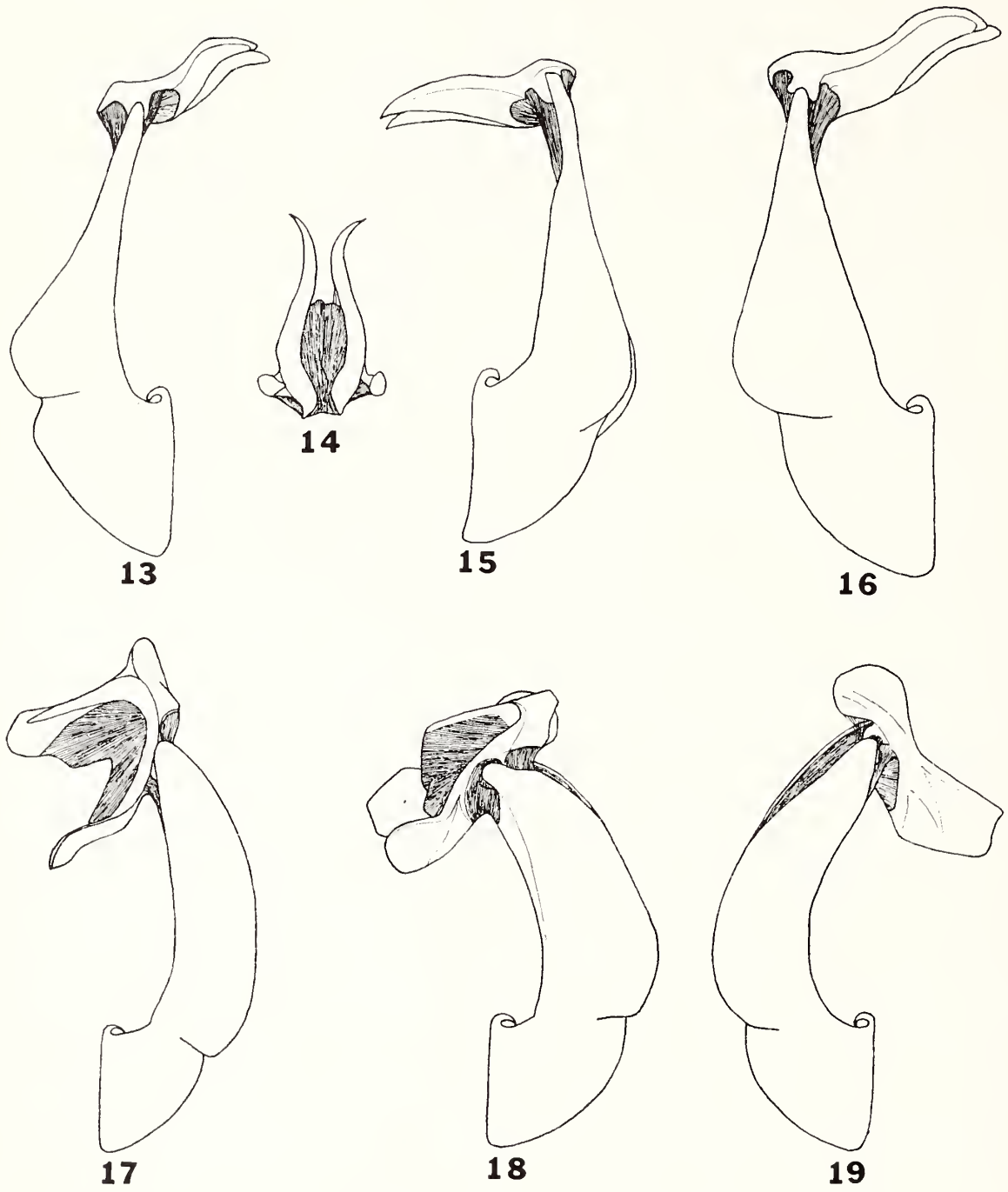
Received for Publication June 8, 1967



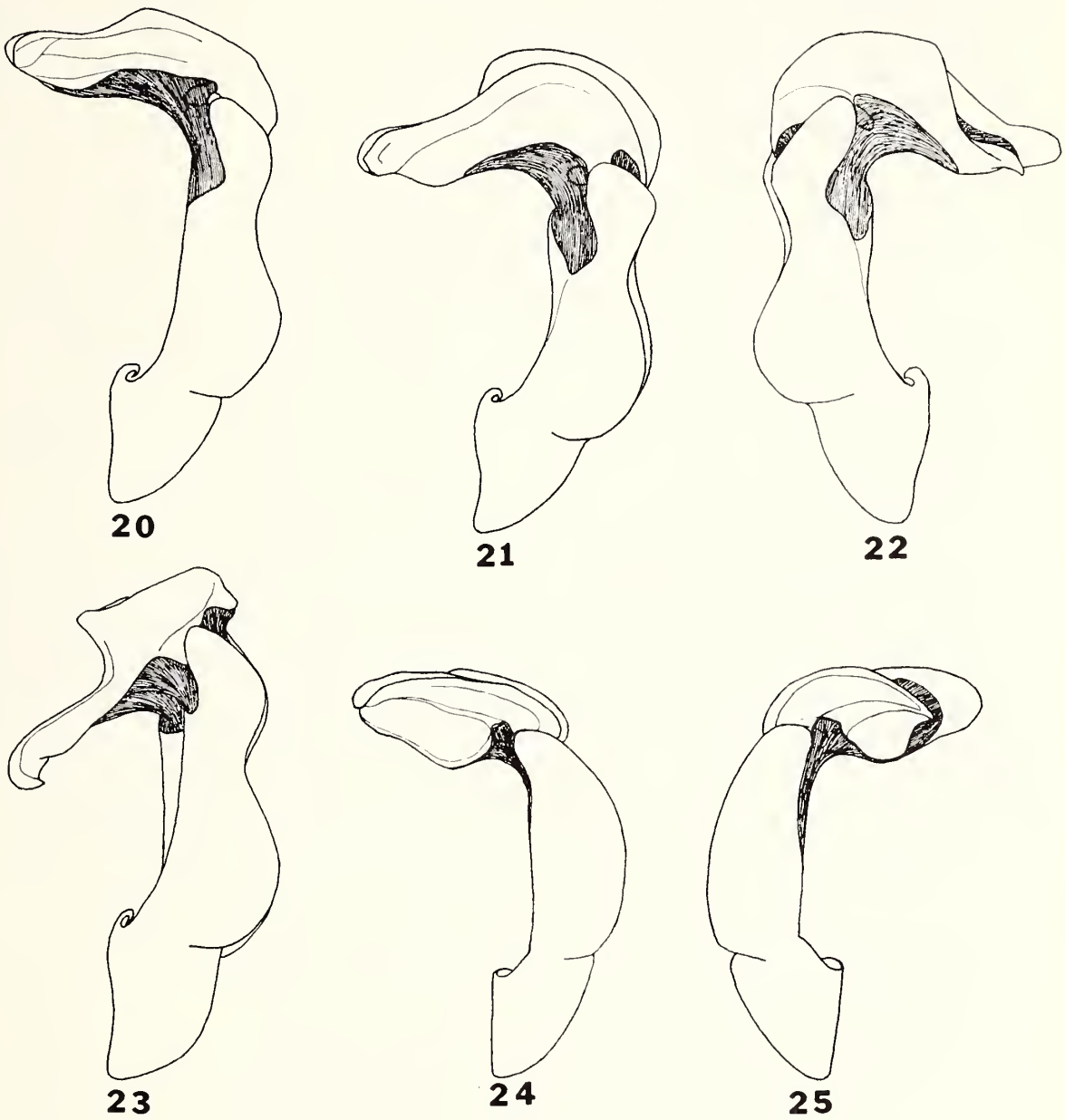
FIGS. 1–6. 1, 2. **howdeni**; 3. **bruneri**; 4, 5. **floridana**; 6. *anthracina*.



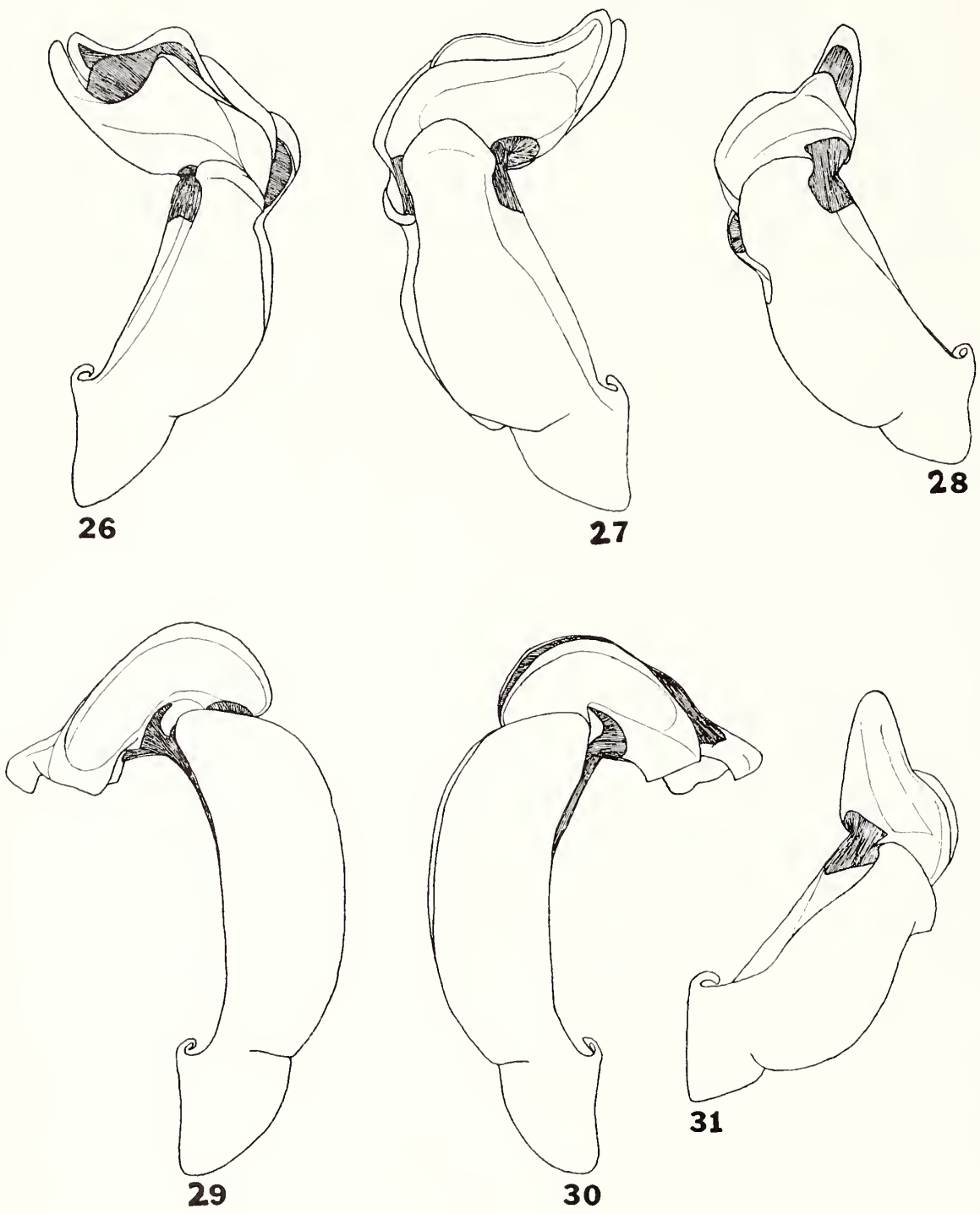
Figs. 7–12. 7, 8. *perigonia* **eremicola**; 9, 12. **pullata**; 10, 11. *oliveri*.



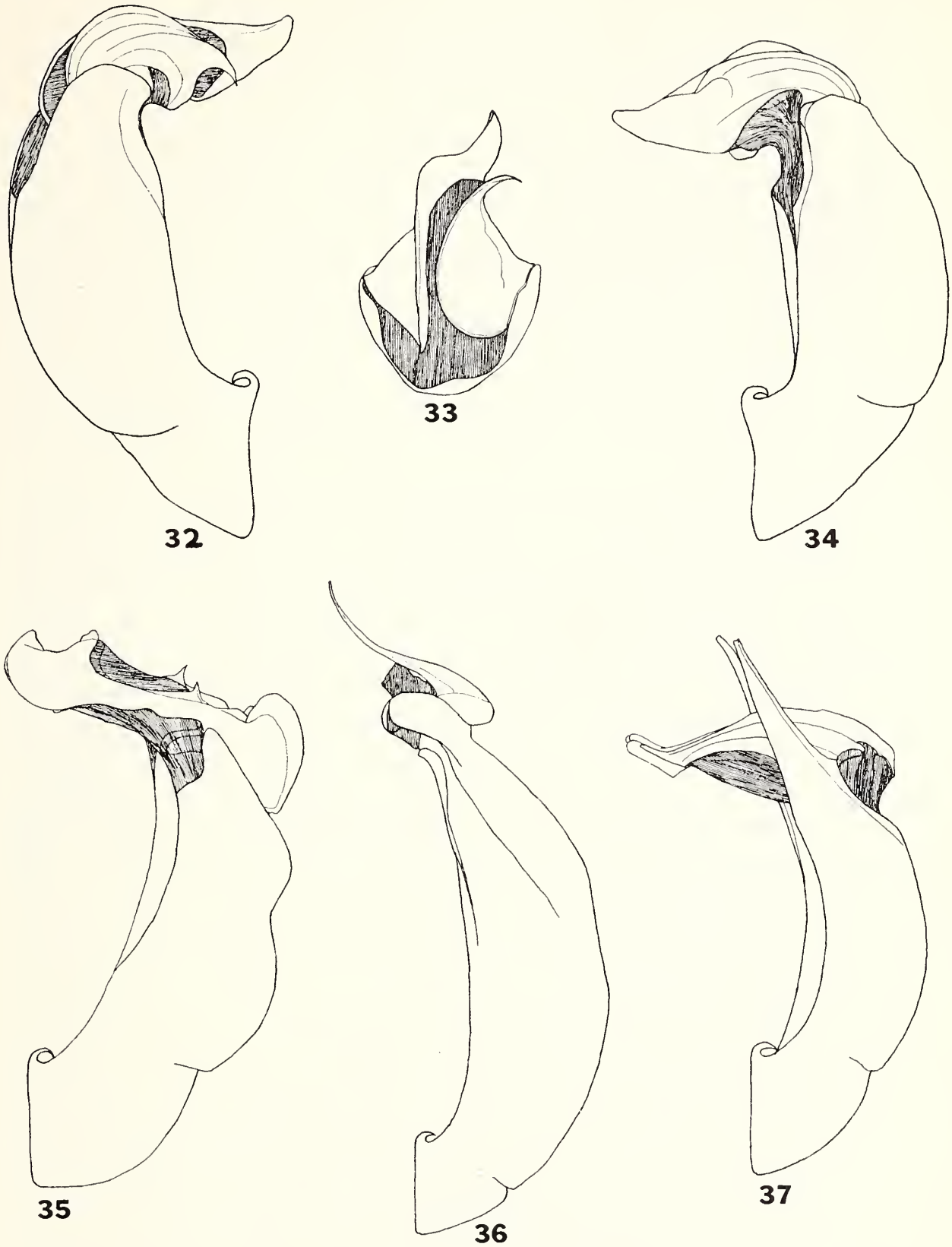
FIGS. 13–19. 13. **alabama**; 14, 15. **sericeoides**; 16. *sericea*; 17–19. **diablo**.



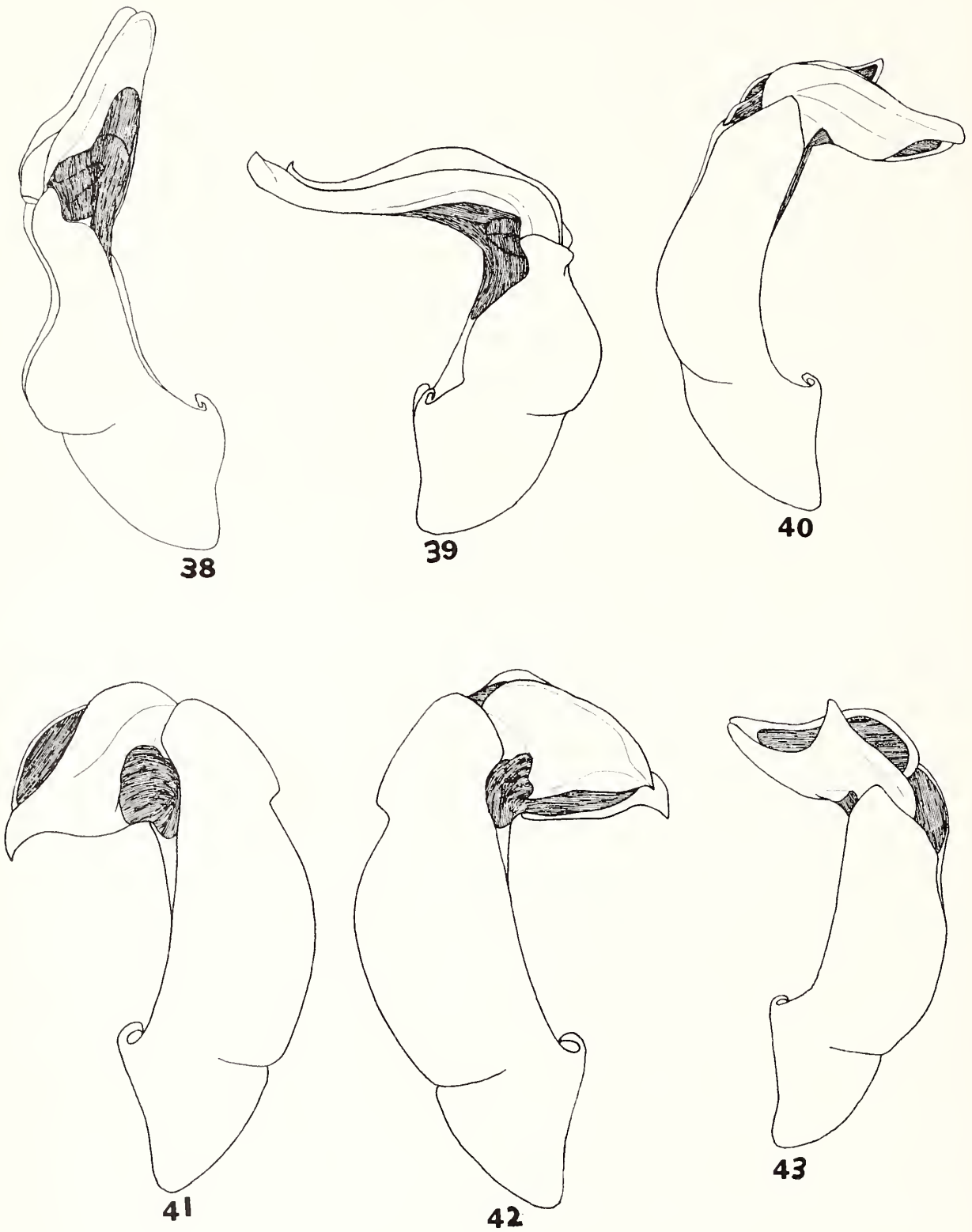
Figs. 20–25. 20–23. *alleni*; 24, 25. barri.



FIGS. 26–31. 26, 27. *ensenada*; 28, 31. *pilifera*; 29, 30. **aviceps**.



Figs. 32–37. 32–34. *rossi*; 35. **heteracantha**; 36. *castanea*; 37. *perigrina*.



FIGS. 38–43. 38. **frosti**; 39. **adversa**; 40, 43. *mackenziei*; 41, 42. *serensia*.